

Changes in the volume of electricity and heating oil consumption in the USA and Poland confirm the close correlation between changes in LOD (length of day) and Earth's climate

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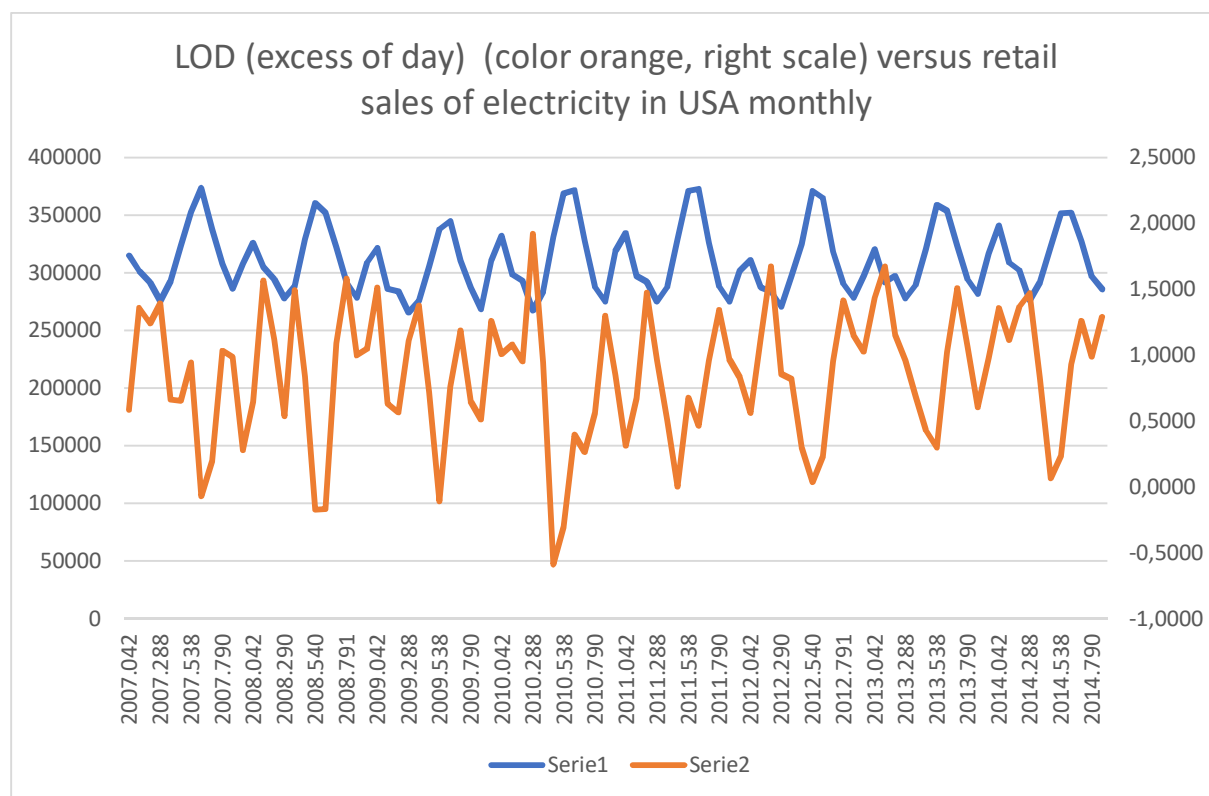


Fig.1. LOD (excess of day changes) monthly versus retail sales of electricity in U.S. (North America)

Source of data:

Data of Retail Sales of Electricity in USA from : U.S. Energy Information Administration

Link:

<https://www.eia.gov/electricity/data/browser/#/topic/5?agg=0,1&geo=g&endsec=8&freq=M&start=200101&end=201905&ctype=linechart<ype=pin&rtype=s&maptype=0&rse=0&pin=>

Source of LOD values: Earth Orientation Center

We see on Fig.1 negative correlation of LOD (excess of day values)with use of electricity in U.S.

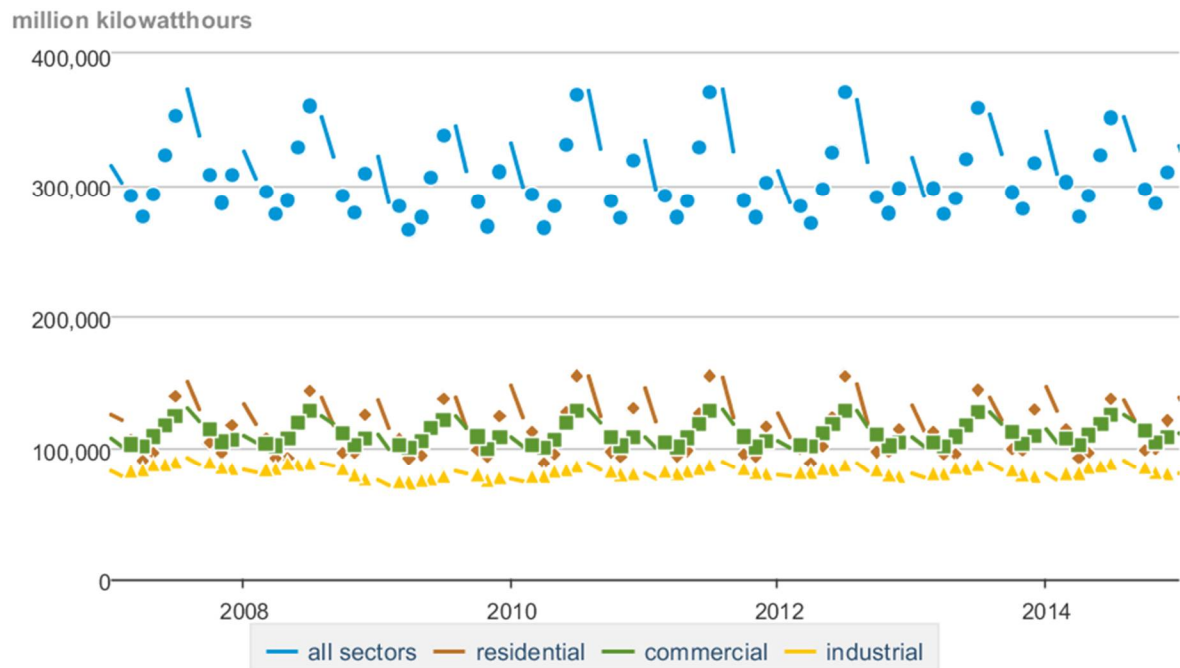
Excess of day values increases (the day is longer) while consumption of electricity in U.S. decreases and vice versa. This correlation can be explained by movement of Earth's rotation axis or movement of Earth's coating what I described below.

The tilt of the Earth's axis of rotation to the ecliptic plane causes a change of seasons on Earth. When the Earth is in the perihelion of the orbit around the Sun (then in the northern hemisphere it is winter), the earth's rotation speed is the lowest (length of Earth's day will increase, LOD will increase). This is probably due to the action of a greater force of gravity of the Sun on the Earth (and its heavier earth coating in the northern hemisphere) and the deflection of the Earth's coating in such a way that the moment of inertia of the Earth increases and speed of Earth's rotation decreases. The reverse phenomenon occurs when the Earth is in aphelium of the orbit around the Sun and the gravitational force between the Sun and Earth decreases. The Earth's coating deflects in such a way that the moment of Earth's inertia decreases and the Earth's rotation speed increases (LOD decreases). Constant changes in the position of the Earth's rotation axis and changes in LOD are constantly recorded by the IERS Earth Orientation Service and calculated 182 days ahead according to mathematical models mapping the movements of the Earth, the Moon and the Sun. The correlation of US and Poland energy consumption volume with LOD changes confirms the correlation of LOD and earthly climate changes because the US electricity consumption for air conditioning increases in summer when LOD decreases (negative correlation) and the consumption of heating oil for heating residential houses increases in winter when LOD increases (positive correlation). The consumption of electricity in the USA to supply air conditioning decreases in winter when LOD increases and the consumption of heating oil in the USA decreases in summer when LOD decreases. This confirms the legitimacy of using LOD predicted by IERS Earth Orientation Center to forecast climate change on Earth.

Opposite correlation of LOD values and use of electric power in Poland is seen on Fig.4. This is caused different economic customs in Poland and U.S.. Electricity in Poland is normally used to heating and lighting residential and commercial houses and its use increase in winter and decrease in summer. Because LOD values are correlated to climate changes during climate seasons so that we see positive correlation between LOD and use of electricity in Poland

This is caused of lack of common use of air conditioning in Poland and bigger use of electricity when is colder, darker in winter.

Retail sales of electricity, United States, monthly



eia Source: U.S. Energy Information Administration

Fig.2. Retail sales of Electricity, U.S., monthly

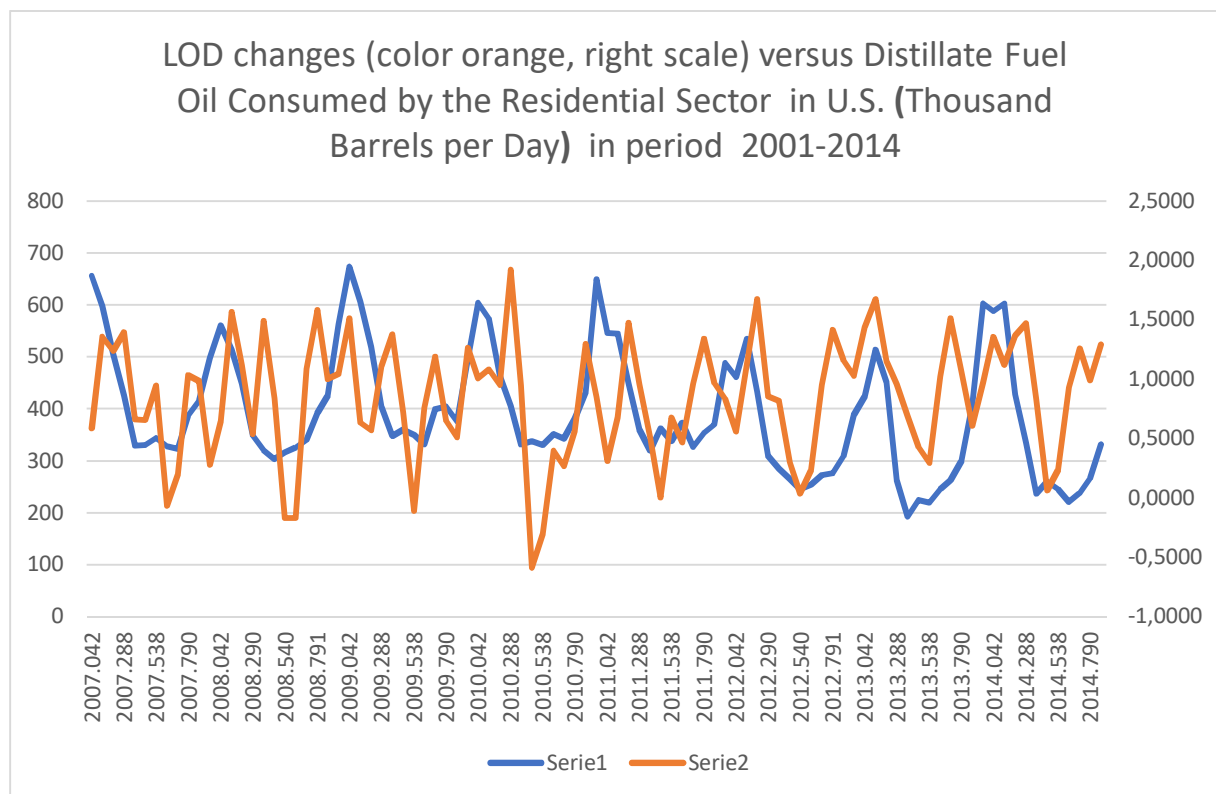


Fig.3. Correlation of LOD values and Distillate Fuel Oil Consumption by the Residential Sector (Thousand Barrels per Day) in U.S. monthly

Source :

Link: <https://www.eia.gov/totalenergy/data/annual/index.php>

Correlation of LOD (length of day) versus use of electrical power in Poland

Based on the research done in 2017, I found that electricity consumption in Poland is closely correlated with LOD changes and because it is certain that electricity consumption in every region of the globe is dependent on climate change, this means that climate change in Poland is closely correlated with changes in LOD which confirms my climate theory. The consumption of electricity in Poland depends directly on climate change, which results in a close correlation of energy consumption with the Earth's geophysical mechanism controlled by the surrounding us Cosmos. I can't correct (make it better) the figure below because of that the current data of the amount of electricity consumption in Poland is secret. Former data I lost.

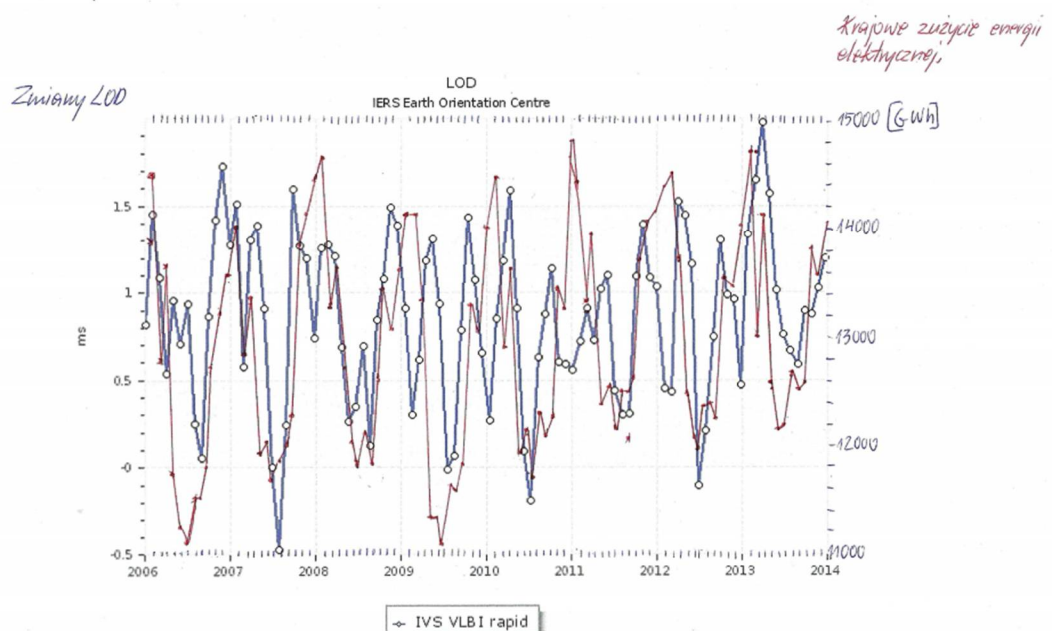


Fig.3. Use of electrical power in Poland versus LOD (length of day)

Blue- LOD source: <https://hpiers.obspm.fr/>

Red: use of electrical power in Poland 2006-2014. Source:

http://www.pse.pl/index.php?modul=8&y=2006&m=1&id_rap=212

Use of electrical power in Poland depends of climate changes. Below is a graph which illustrates dependence of use of electric power in Poland from LOD changes. There is on the graph is seen strict correlation those two variables. In my theory changes of LOD are directly correlated on climate change. Graph below is evidence of such dependence between LOD changes and climate changes and use of electric power in Poland and in the world.

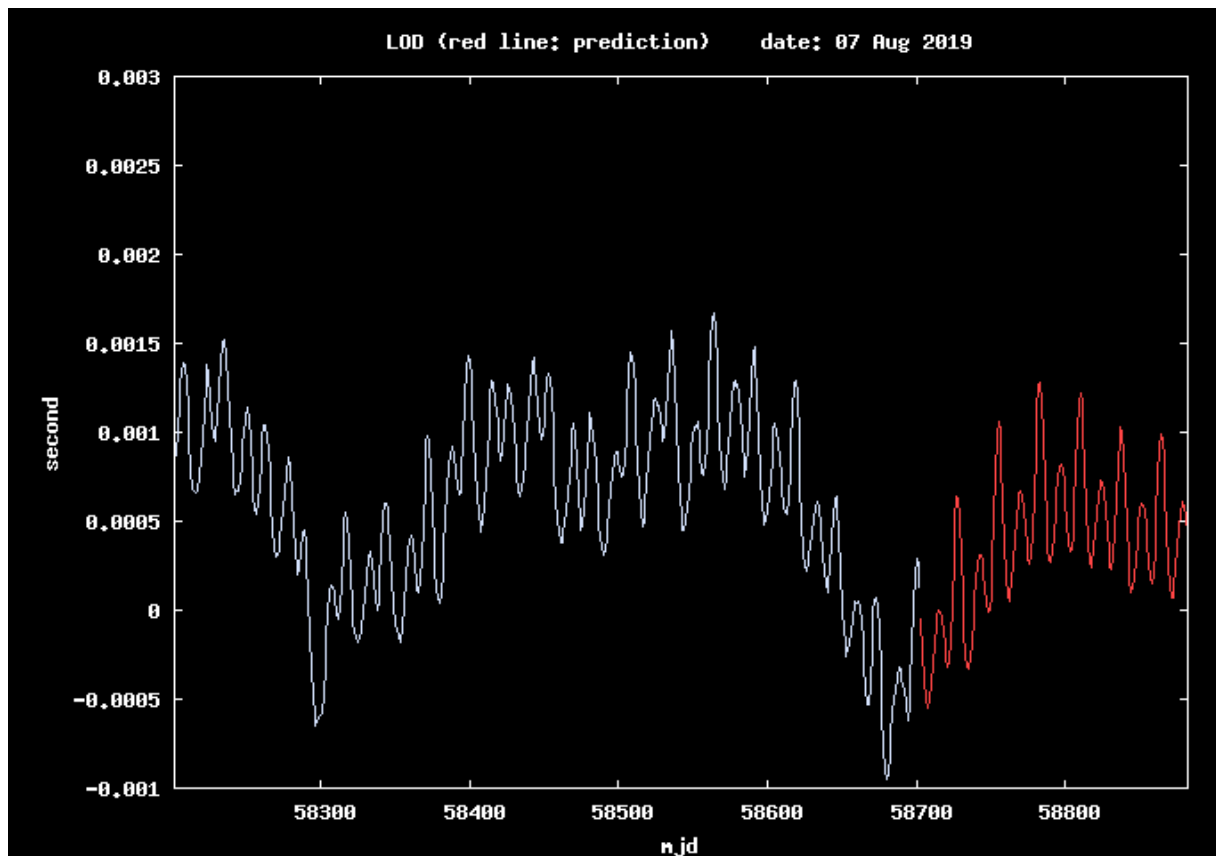
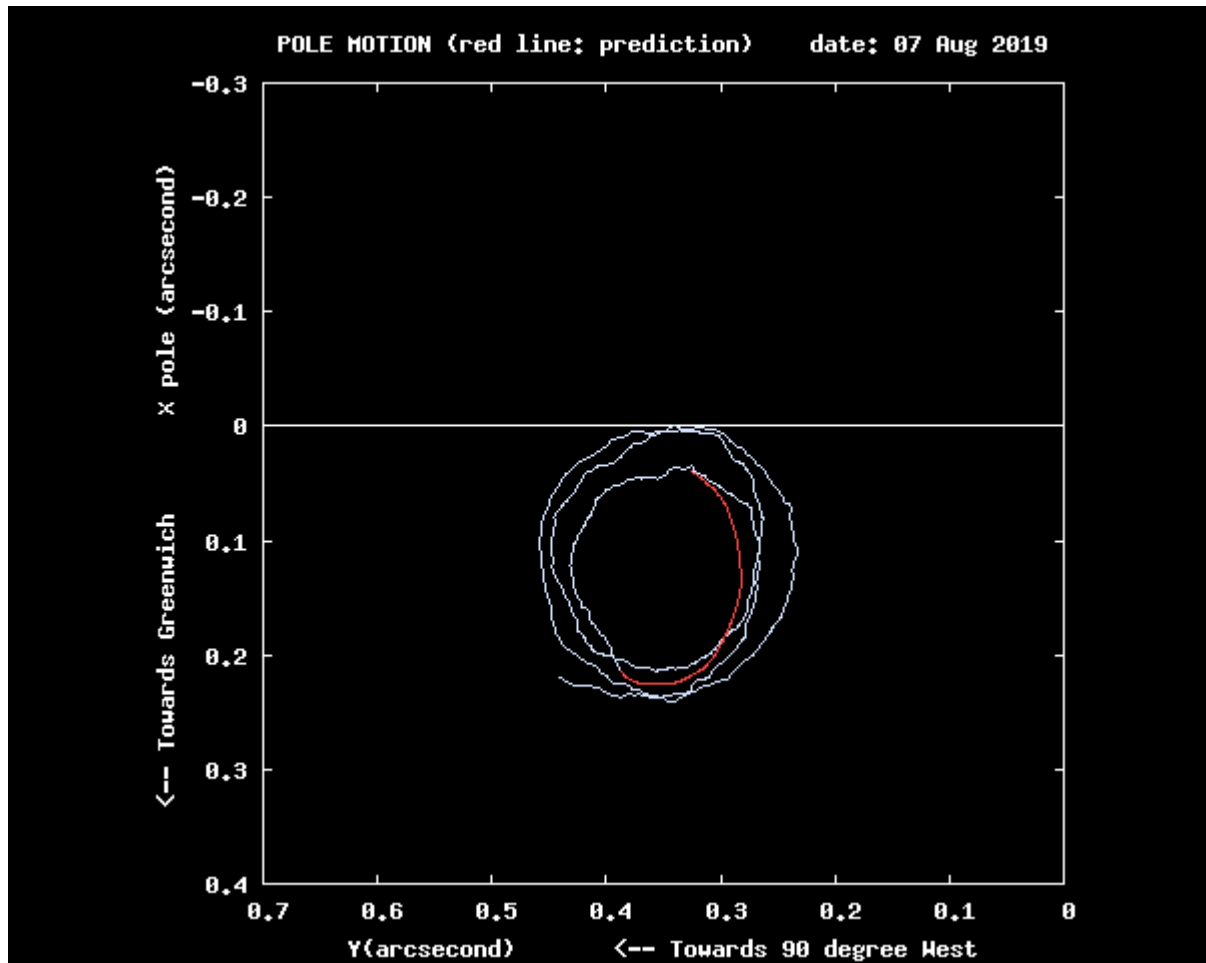


Fig.5. LOD values in 2019 and its prediction in 2019/2020

Source of the graph: IERS Earth Orientation Center



Source of the graph: IERS Earth Orientation Center

Fig.6. Earth pole motion in 2019 and its prediction in 2019/2020

When around December 4, 2019, the Earth is in the perihelion of the orbit around the Sun, the gravitational pull of the sun to the northern hemisphere will be the largest, the Earth's axis (or earth's shell) will deviate most toward the Sun (Fig. 7) and the LOD value (Fig. 5) will be the largest which will cause the lowest temperature point of winter. Then climate will warm up to the spring of 2020. The warming of the northern hemisphere climate will be interrupted many times by the cooling caused by actions of the jet stream, which is the strongest in winter and is probably correlated with the gravitational impact of the Moon.

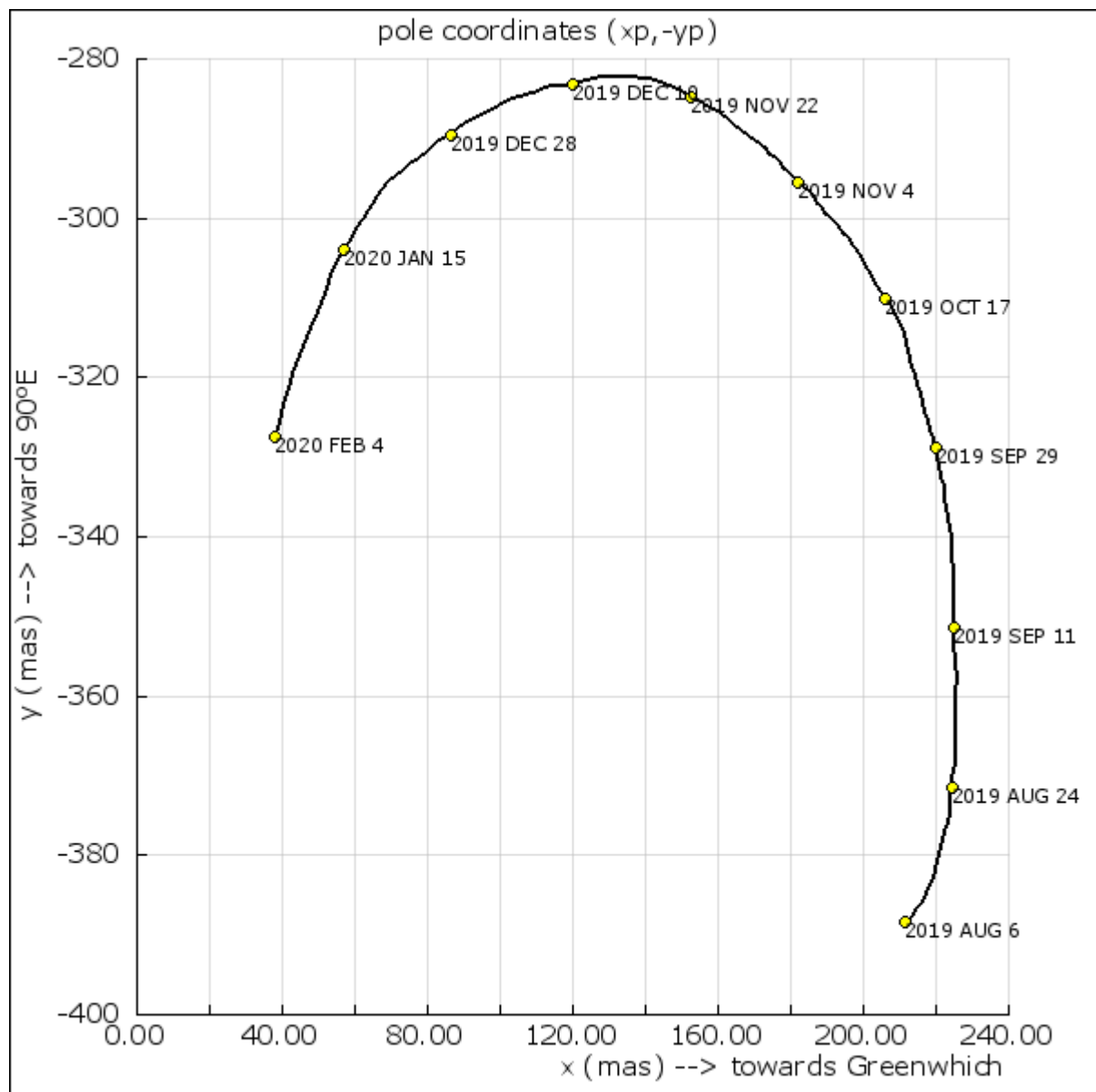


Fig. 7. Earth pole motion prediction in 2019/2020

Source of the graph: IERS Earth Orientation Center